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EVALUATION OF TWO ASSOCIATED YM-YWHA HEADSTART PROGRAMS. FINAL REPORT.

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TWO SUMMER 1965 HEAD START PROGRAMS, ONE IN BRONX RIVER AND ONE IN EAST TREMONT, NEW YORK, WERE SELECTED IN ORDER TO MEASURE THE CHANGES PRODUCED IN THE 36 PARTICIPANTS AS A RESULT OF THEIR HEAD START EXPERIENCE. AREAS MEASURED WERE (1) COGNITIVE FUNCTIONING, (2) PATTERNS OF PLAY AND USE OF PLAY MATERIALS, AND (3) CHILDREN'S FANTASIES ABOUT THEIR PEERS AND ADULTS. A CONTROL POPULATION OF 60 CHILDREN WAS MATCHED WITH THE HEAD START CHILDREN ALONG THE DIMENSIONS OF AGE, SEX, ETHNIC BACKGROUND, PREVIOUS SCHOOL EXPERIENCE, NUMBER OF SIBLINGS LIVING AT HOME, PRESENCE OR ABSENCE OF FATHER AND MOTHER, AND EDUCATION AND OCCUPATION OF MAJOR WAGE EARNER. BOTH GROUPS HAD A MEAN AGE OF FIVE YEARS, FIVE MONTHS. BOTH THE HEAD START PARTICIPANTS AND THE CONTROLS WERE TESTED FOR COGNITIVE FUNCTIONING, PLAY BEHAVIOR, AND PICTURE INTERPRETATION DURING THE LAST TWO WEEKS IN AUGUST. THEY WERE RETESTED IN NOVEMBER, TWO MONTHS AFTER THE BEGINNING OF PUBLIC SCHOOL. RESULTS OF THE TESTING SHOW SIGNIFICANT DIFFERENCES BETWEEN THE TWO GROUPS AT THE TIME OF THEIR FIRST TESTING BUT NOT AT THE SECOND TESTING. (CO'D)

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EVALUATION OF TWO ASSOCIATED YM-YWHA HEADSTART PROGRAMS *

(FINAL REPORT)

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FINAL REPORT

HEAD START EVALUATION

INTRODUCTION

In the summer of 1965, the Associated YM-YWHA's of Greater New York conducted two Head Start programs for a total of eight weeks each. These programs were initiated in response to growing recognition [c.f., for example C. Deutsch, 1962; M. Deutsch, 1963, 1964; Feldman, 1964] of the need for pre-school programs serving disadvantaged children. These children lack many of the basic skills necessary if the school experience is not to be one of failure and frustration. Coming from homes which are crowded, often lacking a father, barren in both quantity and quality of stimulating play materials, and in which children seldom receive individualized attention from the mother, they have not matured, socially or cognitively. For example, it has been suggested that the noise level in these homes is so high that the children's inattention is often adaptive, and thus is reinforced; their attention span and their capacity for auditory discrimination suffers as a result. Since they cannot as readily distinguish subtle differences in sounds, they have greater difficulty than middle class children in comprehending what a teacher, for instance, actually says. Highly related to this is the finding that these children enter school with a deficit in concept formation and general vocabulary.

The summer programs were designed to offset, or overcome,

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some of these deficits among children from disadvantaged homes, who were scheduled for public school kindergarden or the first grade classes starting in the fall of 1965. Specifically, the aim of the programs was to offer the participants a pre-school experience which would help them to learn about the demands of school and teacher, to develop their social skills through participation in an organized group experience with their peers, and to increase the level of their cognitive skills through participation in a wide variety of interesting and stimulating play activities.

In recognition of these program goals, the evaluation aims of this research were to measure changes which might be attributed to participation in the Head Start program, in the following specific areas:

1] Cognitive functioning.

2] Patterns of play and the use of play materials.

3] The children's fantasies about their peers and about adults.

As originally envisaged, the evaluations were to be based upon data collected just prior to the initiation of program, and again just prior to the termination of program, eight weeks later. Unfortunately, notification of the grant award came after program had been initiated so that the collection of "pre" and "post" data was not possible. Instead, as will be discussed in the "Methods and Procedures" section of this report, all of the Head Start participants and a matched group of controls were tested at the end of program and again in a follow-up in Novemeber, two months after

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the beginning of school. The use of controls satisfied the aims of the evaluation in terms of measuring changes which could be attributed to Head Start participation. The follow-up phase of the study was an outgrowth of our belief that the effects of program might be latent and that, therefore, they might become manifest to a greater degree after exposure to school. In other words, the Head Start program was regarded as a mediating variable which, because of its emphasis on such factors as attention span, cooperation, and successful completion of goals, would enable the participants to get more out of the initial school experience which would in turn, reinforce tendencies toward better performance on the various study measures.

METHOD AND PROCEDURE

1. Sample:

All of the children who were participants in the Head Start programs of the Bronx River and East Tremont YM-YWHA's for the full eight weeks of the Head Start program were studied (N=36). In addition a matched group of children who served as controls (N=60) were also studied. The larger sample of control children was obtained in order to offset possible attrition by the time of the follow-up study done in November, 1965.

The Head Start children who were scheduled for entrance into the public school system in September, 1965 had no prior school experience. It was expected originally that the control group

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would be selected from the Head Start waiting list. However, it was found that there were only 12 children on this waiting list. The recruitment of a matched control group was then accomplished in a combination of ways. First, the waiting lists from several neighborhood day care centers and one public school were used; however these proved of little value, particularly as a number of families had moved, and many had no telephones and were not at home during the day and were suspicious of callers in the evening. An extensive mailing [see attached pamphlet] also proved unrewarding, as did a Community Organization approach, involving the cooperation of indigenous leadership.

Ultimately, therefore, three college graduates who had been trained by the Project Director in the testing procedures, together with three young indigenous male escorts, went through the neighborhoods, into the playgrounds, and into the homes. In this way the sample of 60 control children finally was obtained.

The Head Start and control groups were matched along the dimensions of age, sex, ethnic background, previous schooling, number of siblings living at home, the presence or absence of the father and mother, and the education and occupation of the major wage earner. The two groups, control and participant, had been selected on the basis of age, and lack of any previous organized school exeerience. Hence, by definition they were identical in these respects: none of the children had had any previous school experience, and the mean age in each group was five years and five months.

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In terms of the other dimensions the two groups also were highly comparable. Chi-square tests performed on each of the dimensions supports the comparability of the samples.

Table 1. The result of the Chi-square analyses of the matching variables between the Head Start and control groups.

Dimension	DF	X^2	P
Sex	1	.1632	NS
Ethnicity includ. PR exclud. PR	3 2	9.549 0	P $\begin{matrix}< .05 \\ NS\end{matrix}$
Occupation	7	6.280	NS
Education	6	11.933	NS
Father Present	2	2.425	NS
Mother Present	2	4.713	NS
Siblings in Home	7	49.653	P < .01

As will be noted from inspection of Table 1, the controls differed from the Head Start participants only in the number of siblings in the home, and the number of Puerto Ricans, which was greater among the Head Start participants than among the controls. The number of siblings does not seem to be a crucial variable by itself. Since it might be expected that Puerto Rican children will do more poorly on a set of English language cognitive tests than non-Puerto Ricans, the significantly greater number of Puerto Ricans in the Head Start group leaves them at a disadvantage in relation to the controls and thus works against our hypothesis. Hence, this difference appears not to have been

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crucial for the present study.

2. Testing Schedule.

As will be discussed later in this section, there were three general types of measures used in this study: cognitive measures, observational measures of behavior change, and measures of fantasy productions based upon an original projective device. The cognitive measures and the projective device were presented to both the participant and control groups during the last two weeks of August, a time corresponding with the end of the eight-week Head Start program.

The observation procedure was applied to participants only, taking place during the Head Start program hours, for two weeks at the beginning (Time I) and two weeks at the end (Time II) of program.

The retesting in November involved only the cognitive and projective measures and was done in the public schools. All the children's parents or guardians had been asked, at the time of the first testing, which school they thought their children would attend. Each child in the study, both participant and control, was then checked at that school to see if he was actually at that school. Parents of children whom we could not locate received self-addressed postcards requesting that they provide information as to how the children could be reached.

It was fortunate that the size of the control group was originally greater than that of the Head Start group. Of the original 60 children seen as part of the control group in August, only

29 remained by November. Nine of the other 31 children were on a waiting list for entrance into school but had not actually started. These children were not retested since the rationale for the follow-up related specifically to the examination of the differences between Head Start and control children following exposure to school. Since these children had not been exposed to school, they could not be used to test the hypothesis. The other twenty-two children either had moved, and their families had left no forwarding addresses, or the families did not respond to our mailings and their names could not be found at any public school in the area.

Among the Head Start group, seven of the original 36 children were not retested. Of these seven, four were not yet in school and one had been out of school virtually since the beginning of the school year because of illness. The other two children were retested but were excluded, on a random basis, for the data analyses so as to facilitate computation through the maintenance of equal cell N's.

One point should be re-iterated here: inasmuch as pre and post measures were not possible due to the exigencies of time, the evaluation of the immediate impact of Head Start participation was made upon a comparison of participants' and controls' scores on the tests used, at the end of program. Inasmuch as these groups differed only in respect to their having participated in the program, any differences found at the time of testing were attributed to participation.

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3. Data gathering instruments

A. Measures of cognitive functioning.

In view of the nature of the program, interest focussed on such aspects of cognitive functioning as attention span, abstract thinking, judgment, perception, vocabulary, visual-motor organization and auditory discrimination. The tests selected to tap these areas were: certain sub-tests of the Stanford Binet, the Peabody Picture Vocabulary Test, the Seguin Form Board of The Arthur Point Scale, and the Wepman Test of Auditory Discrimination.

1. The Stanford Binet

Eleven sub-scales of the Binet were selected on the basis of pretesting on a pilot population which was of similar socio-economic background to our study samples, and which was made available to us by the Day Care center of the East Tremont YM-YWHA. The sub-scales of the Binet were used not as a measure of general intelligence, but rather as measures of the areas of interest to the study. Hence, rather than obtaining an I Q score, each correct answer was assigned arbitrarily one point, and the total sub-scale score represented only the number of correct answers. The sub-tests selected were:

V - Incomplete Man

VI - 2. Differences

3. Mutilated Pictures

5. Opposite Analogies

VII - 1. Picture absurdities

2. Similarities

4. Comprehension IV

5. Opposite Analogies III

6. Repeating five digits

VIII - 2. Memory

4. Similarities and differences

2. The Peabody Picture Vocabulary Test:

This test was used as a measure of verbal ability since it is easily administered, has a high reliability and, most important, is suitable for use with children who find it difficult to express themselves verbally.

3. The Seguin Form Board

This was used as a test of visual motor organganization. Inasmuch as program participants would be exposed to a wide variety of new stimuli in different shapes and sizes, it was expected that there would be real improvement in this area. Since visual discrimination is a very important skill for reading, and since most teachers expect first graders to be able to differentiate among a variety of visual forms,

deficits in this function are particularly important in terms of inhibiting reading readiness.

On this test the score received was the number of seconds it took to complete the task, following one trial.

4. The Wepman Test of Auditory Discrimination

A number of investigators [e.g., Katz and M. Deutsch, 1963] have found a positive relationship between the capacity to discriminate sounds and reading ability. Moreover, it is difficult for the child to feel interested in what is going on if he is not really sure of what is being said. It was felt that for many of these children it would be their first opportunity to hear English spoken slowly, clearly, and directly to them for sustained periods of time, such as during story reading.

The Wepman test was used as a measure of auditory discrimination. The examiners read forty pairs of words and the child gave a judgment of "same" or "different" after each pair. The children had their eyes closed so that lip reading would be impossible.

All of the children in the Head Start and control groups were tested in individual sessions. Each of the measures, except the Wepman which proved too

difficult a test for the children and which, for this reason, was not re-administered, was given to each child at the end of the program [in August] and again during the month of November. All of the testing was done by the three graduate students who were trained in the exact administration and scoring procedures for each test by the principal investigator.

B. The Observational Schema

In order to test the hypothesis that participation in the Head Start program would increase the children's social skills and their ability to use play materials creatively and constructively, a structured observational schema for observation of children at play was utilized. This observational schema had been developed previously for the study of individual children in groups [D. Holmes, 1964, 1965]. For the purposes of the present study this schema was revised by the addition of seventeen new categories. The revised schema is appended to this report. The observations were carried out at the beginning of program, in the first two weeks of July, and again at the end of program, in the last two weeks of August. Each Head Start child was observed for ten 10-minute sessions, five at the beginning and five again at the end of the program. The observations were carried out by two people trained in the use of the observational schema. In order to avoid

observer bias insofar as possible, particularly the "halo effect", each child was observed by each of the two observers, on a random basis. In addition, the observation periods were randomized further so that each child was observed at different times of the day and during different activities. The observers accompanied the children wherever they went, remaining as unobtrusive as possible. Experience indicated that, after one or two periods, the children no longer noticed the observer, apparently regarding her as a necessary part of the environment.

Each of the number columns of Part A of the schedule, 1 through 20, represents one interaction. In order to complete Part A of the schedule, the observer checked off those behaviors manifested by the subject during the complete interaction. As soon as the interaction was completed, the observer moved to the next column, and so on. In order to complete Part B of the schedule, the observer watched a child for the entire ten minute period and after it was over gave one overall rating, along each of the seventeen dimensions, for the entire observation period. A check of inter-rater reliability was made by having one child observed simultaneously by both observers on several occasions; the resulting reliability estimate was .83, which was highly significant for the N of interactions observed.

C. Fantasy Productions

In order to test the hypothesis that the program would have a positive effect on, and enrich the fantasies of the children about peers, adults and play activities in general, three pictures were drawn especially for the study.

The set of three pictures was presented to each Head Start and control child in the same test session as the cognitive tests, coming at the end of the battery. The children were simply asked to tell a story following the standard TAT instuuctions, about what was happening in each picture. Their stories were recorded verbatim and were later scored. The pictures and the manual for the scoring of the stories are appended to this report.

RESULTS AND DISCUSSION:

1. The Cognitive Tests

As has been noted previously, whereas the analysis of the data collected during the initial round of testing, in August, had been based upon a sample of an N of 36 among the participants and 60 among the controls, the final, comprehensive data analyses were based upon only those subjects, both control and participant, who had completed both rounds of tests. The question then became relevant as to whether the final evaluation was based upon a representative sample of the original participants,

or whether only the "cream of the crop", especially among the controls, had been available for the second testing. There were two ways to test for this. First, it was necessary to re-test along the matching dimensions to find whether the samples were still comparable, and comparable to the original samples. Using a Chi-Square analysis, the samples again were found to be comparable, except with regard to ethnicity and the number of siblings, both with each other in Time II, and with the original samples used in Time I,

The second method for determining the comparability of the Time I and the Time II samples was to do a retrospective analysis, along the cognitive test dimensions, of the reconstituted sample. This involved singling out those individuals used in the final analysis, both participants and controls, and recomputing the Time I cognitive test scores using only these subjects, and comparing the results of these analyses with the results of the original analyses. If the samples were <u>not</u> different, one would expect no significant differences between the means obtained originally and the Time I means calculated on the basis of this reconstituted sample. This was, in fact, the case, as an examination of Table 2, below, demonstrates clearly.

Table 2. Means, N's and SD's of each of the cognitive test scores in Time I, based upon original sample and final sample, together with the results of t-tests of differences.

a. For Stanford Binet Scores

	Original Sample			Final Sample			t	p
	N	MEAN	SD	N	MEAN	SD		
Participant	36	18.92	9.81	29	20.41	10.28	.593	NS
Control	60	11.68	7.42	29	13.03	8.03	.762	NS

b. For PPVT Scores

	Original Sample			Final Sample			t	p
	N	MEAN	SD	N	MEAN	SD		
Participant	33	92.13	18.21	29	90.10	20.10	.412	NS
Control	60	76.60	16.88	29	74.03	15.86	.366	NS

c. For Seguin Scores

	Original Sample			Final Sample			t	p
	N	MEAN	SD	N	MEAN	SD		
Participant	36	57.00	28.72	27	53.00	26.52	.469	NS
Control	57	82.51	38.05	27	71.30	27.86	1.523	NS

On the basis of these data, it is apparent that the reduced sample used in the follow-up analyses was comparable to, and representative of, the original sample.

Table. 3 shows the mean, standard deviation, and result of the t-test for each test in the battery at the time of the August Testing (Time I).

Table 3. Mean, standard deviation, number of subjects, and P level for each test at the time of the First Testing.

TEST	M	SD	N	P
Stanford-Binet				
Head Start	18.92	9.81	36	P /_.0005
Control	11.68	7.42	60	
P.P.V.T.				
Head Start	92.12	18.21	33	P /_.0005
Control	76.60	16.88	60	
Seguin				
Head Start	57.00	28.72	36	P /_.0005
Control	82.51	38.05	57	
Wepman				
Head Start	16.03	12.53	36	NS
Control	16.50	6.38	50	

Inspection of the data in Table 3 shows that the Head Start children did significantly better than the controls on the Stanford-Binet scales, the PPVT, and the Seguin. However, no such difference was found in terms of Wepman scores. This is not surprising for, as Deutsch and Wepman [personal communications] have suggested, it seems that this test is not appropriate for children of this age who come from disadvantaged backgrounds. During testing, it was apparent that the children did not understand the tasks and that, therefore, their responses were made on a chance basis. In view of the apparent inappropriateness of the test, its use was discontinued in the follow-up.

Prior to comparing the means of the different groups, including the scores of tests given at the time of follow-up, an analysis of variance was undertaken for ea h of the three cognitive tests used. It should be noted that the N represented here includes only those subjects, both participants and controls, who completed the entire battery on both occasions [N=29 among both participants and controls, except for the Seguin, where N=27 for both groups].

Table 4. Results of the analyses of variance conducted on the cognitive test data.

a. Binet Scores

SOURCE	SS	df	MS	F	P
Between Times	4,569	1	4,569	60.12	$<$.01
Between Status	961	1	961	12.65	$<$.01
Times x Status	77	1	77	1.01	NS
Error	8,524	112	76		

b. Peabody (PPVT) Scores

SOURCE	SS	df	MS	F	P
Between Times	3,176	1	3,176	11.34	$<$.01
Between Status	2,561	1	2,561	9.15	$<$ .01
Times x Status	1,291	1	1,291	4.61	$<$.05
Error	31,409	112	280		

c. Seguin Scores

SOURCE	SS	df	MS	F	P
Time	7,922	1	7,922	10.16	$<$.01
Status	7,550	1	7,550	9.68	$<$.01
Time x Status	21	1	21	.03	NS
Error	81,130	104	780		

Following this application of the analysis of variance, the Duncan Multiple Range Test was run for each test, in order to determine which differences among the groups were significant, along the dimensions of interest to the study. A tabulation of the means for each of the groups, for each time of testing, and for each test are entered below in Table 5.

Table 5. Means and Standard deviations for each group, on each test, at both times of testing.

	PARTICIPANTS		CONTROLS	
	T_1	T_2	T_3	T_4
Stanford-Binet	N =29 $\bar{x}$ =20.41 SD=10.28	N =29 $\bar{x}$ =31.34 SD= 9.21	N =29 $\bar{x}$ =13.03 SD= 8.03	N =29 $\bar{x}$ =27.21 SD= 6.20
PPVT	N =29 $\bar{x}$ =90.10 SD=20.10	N = 29 $\bar{x}$ = 93.70 SD= 17.00	N =29 $\bar{x}$ =74.03 SD=15.86	N =29 $\bar{x}$ =91.17 SD= 14.48
Seguin	N =27 $\bar{x}$ =53.70 SD=26.52	N= 27 $\bar{x}$=37.44 SD=23.14	N=27 $\bar{x}$=71.30 SD=27.86	N=27 $\bar{x}$=53.30 SD=31.13

The results of the Duncan Multiple Range tests are shown below in tables 6a, 6b, and 6c.

Table 6. Results of the application of the Duncan Multiple Range test (α =.05)

a. For Stanford Binet Scores

	(1) A	(2) B	(3) C	(4) D	Shortest Significant Ranges
Means	13.03	20.41	27.21	31.34	
A 13.03		7.18	14,18	18.31	R_2=4.59
B 20.41			6.80	10.93	R_3=4.82
C 27.21				4.13	R_4=4.97

b. For Peabody (PPVT) Scores

	A	B	C	D	Shortest Significant Ranges
Means	74.03	90.10	91.17	93.70	
A 74.03		16.07	17.14	19.67	R_2=8.78
B 90.10			1.07	3.60	R_3=9.24
C 91.17				2.53	R_4=9.54

c. For Seguin Scores

	A	B	C	D	Shortest Significant Ranges
Means	37.44	53.30	53.70	71.30	
A =37.44		15.86	16.26	33.86	R_2=15.04
B= 54.40			.40	18.00	R_3=15.83
C 53.70				17.60	R_4=16.36

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An inspection of Table 6 shows the following. With regard to the Stanford Binet scores, there was no difference between the participants and controls at the time of retesting, although in Time I the controls had scored lower than the participants. Moreover, both controls and participants did not do as well in Time I as in Time II.

With regard to the PPVT scores, the controls' scores were lower in Time I than in Time II, while the participants' scores remained the same, over time, and were matched by the controls in Time II, although they had been higher in Time I.

With regard to the Seguin scores, the controls' performance was worse [higher score] in Time I than either their performance in Time II or the participants' performance in Time I or Time II. Further, although there was no difference between the scores of the participants in Time I and the controls in Time II, the participants in Time II did better than they had in Time I, and better than the controls at either time.

These results indicate that, by the time of the retest, the differences between the participants and controls were significant only with regard to the Seguin Test. While not significant, the results on the Binet and the PPVT lie in the predicted direction, i.e., the test scores of participants are somewhat higher in both cases.

The significant difference on the Seguin may be taken as a possible indication that early enrichment and practice in a motor skill, i.e., one that is non-verbal, is more likely to have

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lasting effects. On the other hand, most of the findings pertaining to the cognitive tests are of borderline significance or non-significance [using an alpha level of .05], and the Seguin finding may represent only a chance departure from borderline non-significance.

In any event, the results indicate that the latent effects predicted, i.e., that the differences between participants and controls would become more profound after two months of school, were not found. Rather, the results indicate that, while initial differences are striking, the effects of this two-month program were not lasting in terms of maintained superiority of the participant sample.

In light of the significant changes over time in both groups, on nearly every test, it seems likely that either there has been a strong practice effect on these tests, or that considerable maturational growth has taken place during this time. An argument against a practice effect is that a significant change occurred in PPVT scores among the controls. Since an alternate form of the test was used at the time of the retesting, the change on the part of the control group seems to be a genuine representation of growth rather than the effects of practice.

It is interesting to speculate as to the meaning of the findings on the Peabody; i.e., this is an intelligence test and the Head Start children made no gain subsequent to the end of the Head Start program, whereas the control children made a rather dramatic gain. These findings suggest that, with a

sudden and dramatic impact, it is possible to increase a child's I Q rather quickly, but that beyond a certain point increased impact does not increase the I Q. Thus, while the beginning of school dramatically raised the I Q of the control children, who were being exposed to this sort of situation for the first time, it did not further raise the I Q Scores of the Head Start children who had already been exposed to a similar situation. These findings are not very surprising. As will be discussed later, a seven-week program appears extremely short in terms of effecting profound and lasting cognitive changes, and thus these results cannot be taken as a basis for evaluating the potential of longer-range Head Start programs.

2. The Observational Data:

The analysis of the observation data was made on the basis of the observations carried out on 32 children. Although 36 children were given the test battery, four of these children were not present on enough occasions at the very beginning and very end of program to permit inclusion in the observational analysis. For the purposes of data analysis, Part A of the schedule was treated as follows. The total number of times each of the behaviors occurred during each block of five observation periods, among all individuals, was divided by the total number of individuals. In this manner, the mean number of times that each behavior occurred was obtained, for both the first five (time I) and the last five (time II) observations. In all cases, the data were corrected for the number of interactions taking place. Table 7 presents the means, predicted direction of change and t-values for the data obtained from Part A of the schedule.

Table 7. Means of individual total scores and t-values for observational data (Part A) collected at the beginning (Time I) and the end (Time II) of the Head Start Program. (An asterisk (*) denotes change in the positive direction.)

	Time I	Time II	Pred. Change	Actual Change	t	P**
TOTAL NUMBER INTERACTIONS	32.72	30.78	*	-	1.259	NS
Interaction Involves Leader	13.31	14.00	*	*	< 1	NS
Initiator: Subject	18.36	18.30	?	-	< 1	NS
Initiator: Other	12.27	12.40	?	*	< 1	NS
Initiator: Leader	5.51	5.20	-	-	< 1	NS
ORIENTATION						
External Manifest Goal	15.11	15.30	*	*	< 1	NS
Social Goal Solidarity	12.98	14.70	*	*	1.710	.05
Non-Purposive	1.68	.68	-	-	6.46	.01
Responding	4.39	2.30	-	-	4.18	.01
EXPRESSED SELF-ESTEEM						
Lacking	1.25	.84	-	-	1.05	NS
Realistic	28.10	29.40	*	*	2.13	.05
Unrealistically Great	1.94	1.60	-	-	< 1	NS
REACTION TO FRUSTRATION						
Withdrawal	1.43	.90	-	-	1.29	NS
Aggression	6.96	5.30	-	-	1.96	.05
Goal Substitution	.91	.60	*	-	< 1	NS
Perseveration	1.60	1.00	-	-	1.890	.05
Other Appropriate	9.15	15.80	*	*	4.380	.01
Other Inappropriate	.41	.10	-	-	1.480	NS
EMOTION						
Negative	7.36	5.30	-	-	2.71	.01
Positive	16.91	20.00	*	*	2.43	.05
No emotion	7.18	6.40	-	-	< 1	NS
TERMINATOR						
Subject	15.61	14.30	*	-	1.301	NS
Other	16.82	18.00	-	*	1.298	NS
GOAL REACHED						
Yes	20.69	24.50	*	*	3.97	.01
No	8.06	6.10	-	-	2.86	.01
No Apparent Goal	3.90	2.00	-	-	3.13	.01

** Tests were made on the basis of 31 df, throughout.
Where change was in the predicted direction, a 1-tailed test was used.
Where change was in the direction opposite to the predicted, a 2-tailed test was used.

The data analysis of Part B of the schedule was carried out as follows. Each individual score on each of the dimensions, for each of the five occasions, was added and divided by five in order to obtain that individual's average score. Then all of the averaged individual scores were added together and divided by the total N to obtain the average score for the whole sample on each of the seventeen dimensions. This procedure was followed for both Time I and Time II data. Table 8. shows the means, predicted direction of change, and t-values for the data obtained from Part B of the schedule.

Inasmuch as the means were correlated, i.e., the same individuals were observed in Time I and in Time II, statistical comparison of the means centered about an analysis of difference scores [see for example, Ferguson, 1959].

(1408)

Table 8. Means of average individual scores* and t-values for observational data (Part B) collected at the beginning (Time I) and the end (Time II) of the Head Start Program. (An asterisk (*) denotes change in the positive direction.)

Question Topic	Keyed Direction	T_1 Aver. Score	T_2 Aver. Score	Predicted Direction of Change	Actual Dir. of Change	t	P
1. Activity Level	1: Active	1.90	1.51	- (more active)	-	3.166	.01
2. Gross v. Fine Movements	4: Fine	2.38	2.81	* (less gross)	*	3.617	.01
3. Awkwardness v. Grace	4: Graceful	2.50	2.92	* (less awkward)	*	3.980	.01
4. Tension Reduction through Motor Activity	4: Non-Motor	2.62	2.79	* (less motor)	*	1.21	NS
5. Coping: Success	1: Typically Succeeds	2.15	1.71	- (more success)	-	3.895	.01
6. Relations: Animate v. Inanimate	1: Animate	1.89	1.88	- (more animate)	-	$\angle 1$	NS
7. Appropriate Attention-Getting	1: Appropriate	1.76	1.59	- (more approp.)	-	1.391	NS
8. Communication Mode	4: Verbal	2.64	2.94	* (more verbal)	*	2.364	.05
9. Response to Success	4: Positive Affect	3.53	3.68	* (more positive)	*	1.192	NS
10. Response to Failure	4: Appropriate	2.35	2.79	* (more approp.)	*	2.299	.05
11. Goal Directed v. Random	4: Goal Directed	2.37	3.00	* (more goal)	*	5.421	.01
12. Attention Span	4: Lengthy	2.23	2.97	* (longer)	*	5.356	.01
13. Investment of Self	4: Much Investment	2.50	3.12	* (more invest.)	*	5.180	.01
14. Creativity	4: Typically Creative	1.89	2.36	* (more creative)	*	4.375	.01
15. Constructive v. Destructive	4: Constructive	3.13	3.65	* (more construct.)	*	4.172	.01
16. Attention Seeking v. Autonomous	4: Autonomous	2.92	3.17	* (more autonomous)	*	1.802	.05
17. Appropriateness of Attention-Getting from Peers	1: Appropriate	1.93	1.87	- (more approp.)	-	$\angle 1$	NS

* Scale end-points were 1 and 4.

As can be seen readily, from inspection of Tables 7 and 8, considerable change did take place in the children's behavior, both in their interactions with others and in their relation to the play materials provided. In the discussion of the results which follows, only those which were significant will be considered.

Turning now to the data summarized in Table 7, it is apparent that considerable change took place in terms of the "Orientation of the Interaction". There was an increase in behavior which was directed toward a fostering of solidarity, with a marked decrease in random, non-purposive, and merely passive responding behavior. In other words, at the end of program the goal of ihe interaction was more likely to be social and affiliative, and less likely to be random or recipient, than at the beginning of program.

In terms of "Self-Esteem" it is interesting to note that there were relatively few interactians in which self-esteem was either lacking or was unrealistically great. This findings suggests that the self-esteem of these children, at least as measured by a non-personality oriented instrument, is quite realistic. Indeed inspection of the data reveals a far greater number of instances in which the expressionsof self-esteem were quite realistic. It is also encouraging to note that the number of these realistic self-expressions did increase during the program.

Inspection of the data pertaining to "Reactions to Frustra-

tion", indicates that there were fewer aggressive reactions, fewer instances of perseveration, and an increase in appropriate modes of response by the end of program. This change is particularly important because it suggests that the program was able to foster growth in terms of the adaptive and coping behavior which becomes so crucial in the school situation. All children must sooner or later be frustrated by, for instance, an inability to understand the teacher's demands or by the necessity to wait their turn. It is encouraging to note that these children have learned to cope with these simple frustrations a little more successfully.

Closely related to this finding is the one which pertains to the "Emotions" expressed by the children. By the end of program there were fewer instances of negative emotion and significantly more instances of positive emotion. This suggests that in spite of all the frustrations and tensions engendered in a new situation, despite the anxiety of separating from their mothers, and having to cope with a new group of their peers and the strange person of the teacher, the children found a good deal of satisfaction in the situation and are now perhaps more ready to invest the whole school experience with more positive affect.

Finally, the previously discussed finding pertaining to a decrease in non-purposive random behavior is supported by the data on "Goal Reached". There was a significant increase in the number of instances in which goals were reached, and a signifi-

cant decrease in the number of instances in which they were not reached, and in the number of interactions in which there was no apparent goal. This finding also supports the picture of a more successful, striving and adaptive approach to interpersonal situations.

On the basis of the results obtained from Part A of the observation schedule, it may be concluded that the program fostered a more positive, purposive, problem-solving, striving, and adaptive approach in the children. Moreover, they seemed happier and had a more realistic view of their successes than before.

Turning now to Table 8, it can be seen readily that the changes measured by Part B of the observation schedule were considerable. Out of the seventeen dimensions tapped only five are not statistically significant and even these non-significant changes are in the predicted direction. However, only those twelve which achieved statistical significance will be discussed.

The "Activity Level" shows a change in the direction of greater activity. Since by "activity"was meant an active approach to any topic at hand, this supports the finding on Part A of the schedule that the children by the end of program were responding in a less passive manner. This implies that they were more comfortable, both with others and with the play materials, and that they could relate to both more fully.

The significantly greater reliance on "fine" rather than "gross" motor activity, and on achievement of "grace" rather than"awkwardness" in movement suggests, once again, a greater involvement with the manipulation of materials and a greater skill

in their use. It is not surprising that with this greater increase in motor skill, the children's realistic self-esteem was was enhanced.

The increase in "Successful Coping" behavior augments the previously discussed finding on Part A of the schedule which pertains to the rise in number of goals reached, and the decrease in number of goals not reached. Such successful coping behavior once again reflects the children's greater familiarity with, and the effects of practice in, the new situation. It demonstrates how vital the pre-school experience can be in terms of teaching successful coping behavior and giving the children an opportunity to learn what is expected of them.

The finding relating to the "Mode of Communication" is a particularly striking one. Since verbal communication becomes so extremely important in the school situation, it is encouraging to note the increase in verbal v. non-verbal communication. However, it must be observed that even in Time II the child's communication is only "verbal a bit more than non-verbal." This finding lends support to the growing body of literature, on which many Head Start Programs have been based, which suggests that the disadvantaged child simply has not had the opportunity to develop verbal skills commensurate with those of his middle class counterpart. The need for additional work in this area with the children who are still not at the level of verbal communication which is demanded of them by the school situation, is apparent.

The finding which pertains to "Response to Failure" suggests that, at the end of program, the children are more likely to react with goal substitution and less likely to respond by withdrawal, aggression, or perseveration. This finding lends support to the finding on Part A of the schedule that there was a decrease in aggression and perseveration and an increase in appropriate modes of responses in a frustrating situation. Since frustration-tolerance is such an important factor in learning, this may be taken as a very positive result of the program.

The increase in "Goal-directed Activity" supports the finding in Part A of the schedule which pertains to a decrease in non-purposive behavior. Once again, these findings strongly support the notion that these children will enter the school situation with a much clearer idea of what they can accomplish and how it can be done.

The finding with respect to a significant increase in "Attention Span" is particularly important when viewed in terms of the requirements of a learning situation. As has been discussed in the literature the disadvantaged home is one which encourages inattention, since so little of what transpired is geared specifically to the child. Hence, it is one of the most important tasks of a pre-school program to successfully increase the child's attention span.

The finding with respect to the "Investment of Self in the Activity" and "The Creative Use of Materials" may be discussed together as they are quite closely related. The significant

increase in both these variables suggests that the program was successful in terms of familiarizing the child with a variety of play materials, and in thus stimulating his imagination and creativity. What emerges is a greater personal involvement with each toy or activity. It is this greater involvement with the environment that can set the stage for effective learning.

The finding pertaining to an increase in the "Constructive" use of materials is not surprising. When children feel more successful and more able to cope with environmental objects, they are much less apt to see these objects as potentially frustrating, and much more apt to concentrate on their constructive manipulation and exploration.

The decrease in "Attention-seeking Behavior" and the increase in autonomous behavior suggests a greater self-reliance, a greater capacity to act for oneself without the heavy reliance on external approval and evaluation, and a general growth in the direction of individuation and separation of the self from the environment.

The findings discussed in relation to the observational data from Part B of the schedule strongly support the overall impression that this brief program did tend to increase the skills, self-esteem, autonomy, and coping mechanisms of the participants. The increase in these attributes should make the children considerably more capable of participating effectively and positively in the school situation, if these changes are long-lasting. In a future study a follow-up set of observations in the school setting would be invaluable in order to assess the duration and

and extent of the changes initially observed.

3. Projective Device:

All of the stories were coded and scored "blind," so that the rater did not know which children were Head Start and which were control. Each story was scored for the quality of the interaction between the main characters mentioned, the degree of investment on the part of the main characters in the activity, the affect with which the activity was invested, and the degree to which it was constructive or destructive.

Table 9 gives the results of the scoring for the Head Start and controls at the time of the first (Time I) and second (Time II) testings on whether the interaction was positive, negative or neutral.

Table 9. scores for Head Start and control groups at T_1 and T_2 on the quality of the interaction.

	HEADSTART				CONTROL			
	+	-	0	Total	+	-	0	Total
T_1	36	40	38	114	28	22	59	109
T_2	25	35	34	94	30	32	30	92

It is interesting to note that at T_1 the Chi-square differences between Head Start and controls are significant at the .01 level, whereas at T_2 these differences are not significant. This finding parallels the findings on the cognitive tests. It supports the notion that a short term program served only to advance the time schedule for certain changes, but that

as soon as other children have a similar opportunity they catch up rather quickly.

Moreover, there is no significant difference in the Head Start group at T_1 and T_2, whereas there is a significant difference in the control group at T_2. This further supports the notion that the first two months of school do not represent a "just noticeable difference" for the Head Start children, whereas they do for the controls.

It is quite interesting to inspect the data in Table 9 rather carefully. It readily becomes apparent that at T_1 the Head Start group manifested far more instances of negative interaction and fewer instances of "no interaction" than did the controls. These are the differences which disappeared after two months of school when the control children became more like the Head Start children and had more instances of negative interaction and fewer instances of "no interaction".

Clinically, this finding is rather striking. It suggests tentatively that the initial experience of being in an organized group setting has a civilizing effect on behavior. In other words, the Head Start children, who in the observation data, showed a change in the direction of less aggressiveness in overt behavior, also show an increase in aggressiveness in their fantasy life. This suggests that hostile impulses are, through this type of experience, less likely to be acted upon and more likely to be represented in fantasy. In this manner they are more likely to be under the control of the ego. Had

there been corraboratory observations of the controls, we might well have seen a decrease in the aggressiveness of their overt behavior, with its concomitant increase in fantasy productions.

Table 10 gives the results of the scoring for the Head Start and controls at the time of the first and second testing on the Degree of Investment in the Activity Depicted.

Table 10. [illegible] scores for the Head Start and Control groups at T_1 and T_2 on the Degree of Investment in the Activity.

	HEADSTART				CONTROL			
	+	-	0	Total	+	-	0	Total
T_1	75	39	0	114	55	54	0	109 10
T_2	60	34	0	94	55	37	0	92

Chi-Square analysis of the data in Table 10 shows that there is a significant difference [$p < .02$] in the degree of investment in the activity between Head Start and controls at T_1, but that once again the difference no longer exists in T_2.

Similarly, there is no significant difference in the Head Start group between Time I and Time II. While the differences between Time I and Time II for the control group also are not statistically significant, inspection of the data shows that the change is in the predicted direction. The controls showed initially a far greater number of instances on which there was "no investment" in the activity depicted, but after the two months in school they showed fewer instances of "no investment."

These findings support all the other data which has suggested that the Head Start experience, in the short run, has profound impact, but that it is not more effective than the first two months of school in this regard. Those children who have had the "shot in the arm" of Head Start do not then change appreciably during the first two months in school.

The data are also interesting because it seems likely that the increased investment in a fantasized activity is rather similar to the increase in fantasy investment observed in actual play. It was observed that the Head Start children showed positive growth in the areas of "investment of self in activity" and in "creative use of materials" on the observational schedule. The validity of these findings is given further credance by the present finding that there is a decrease in solely descriptive statements about activities rather than the creative development of fantasy about them. Thus, not only are the children more likely to play creatively with a doll rather than just to pick her up, but also they are apt to be creative in their verbal fantasy about the doll. For example, they are more likely to say that: "The baby is going to sleep after her dinner" than they are merely to say: "The girl has a doll."

Table 11 gives the results of the scoring for the Head Start and control children at the time of the first and second testings regarding whether the activity is endowed with positive, negative, or no discernable affect.

Table 11. scores for the Head Start and Control Groups at T_1 and T_2 on the quality of affect invested in the activity.

	HEADSTART				CONTROL			
	+	-	0	Total	+	-	0	Total
T_1	34	45	35	114	30	27	50	107
T_2	34	42	18	94	30	32	32	94

The findings on this dimension parallel the findings on the quality of interaction. This is not really surprising as, especially for four and five year olds, thinking is invested with sufficient animism to lead one to expect that they will feel about objects much the same way they do about people. Thus, a five year old who describes a positive interaction with another child is as likely to describe positive play with a truck.

The Chi-square analysis shows a significant difference at the .05 level between Head Start and controls at T_1 but not at T_2. Inspection of the data reveals that the Head Start children initially showed more instances of negative affect and fewer instances of no affect whereas at the time of retest there were no significant differences.

The differences within each group between Time I and Time II were not significant. The primary change in both groups as a result of two months of organized social and play experience seems to have been in the decrease of instances in which there was no affect whatever invested in the activity. This finding

parallels the previous finding which showed a decrease in the number of instances in which there was no investment in the activity. Clearly, once there is greater investment in an activity, it is then more likely to be imbued with either positive or negative affect.

Table 12 gives the results of the scoring for the Head Start and controls, at the time of the first and second testings, on whether the activity engaged in is constructive, destructive or neutral.

Table 12. Scores for the Head Start and Control Groups, at T_1 and T_2, on the Constructive and Destructive Nature of the Activity.

	HEADSTART				CONTROLS			
	+	-	0	TOTAL	+	-	0	TOTAL
T_1	48	35	31	114	34	21	54	109
T_2	35	42	17	94	31	31	30	92

The findings with regard to this dimension parallel all the other findings. The differences between Head Start and Controls at T_1 are significant at the .01 level, but there is no significant difference after the controls also have been exposed to a social-play situation. The differences are chiefly in the direction of more destructive and constructive fantasy, and less neutral fantasy on the part of the controls at T_2. This supports the notion that initially exposure to the school-type setting increases investment in play and in play materials. Again, if the investment is increased, then the fantasies about

the materials are less likely to be neutral.

The Head Start group showed no significant change between Time I and Time II, but the change in the control group was significant at the .05 level. This change is primarily in the direction of decrease in the neutral instances discussed above.

IV. CONCLUSIONS:

Consideration of the full evaluation of the Head Start program suggests that its short-term effect is very striking. Initially, the Head Start group did better than the controls on virtually all of the measures, and the Head Start children showed dramatic change as measured by the Observation Schedule. However, once the control group had attended two months of school their performance matched that of the Head Start children with the exception of the Seguin Test performance. It seems that two months of the Head Start program, at least as it was conducted in these two centers, and two months of school are rather similar in their effect. In fact, the results show rather dramatically what children are like, on a variety of dimensions, before and after their first two months exposure to an organized social-play situation.

These findings are really not surprising. The first two months of this type of experience are so different from the child's experiences in the home that they have a dramatic effect on fantasy and on behavior. Both the school and the Head Start program, as it was conducted, are primarily organized nursery school play experiences and, as such, have a great deal

in common.

It is possible that the first two months of school are so dramatic for children who previously have had no such experience that this was, in fact, the worst time for a re-comparison. Possibly, if tested at the end of a year, the Head Start children would show more consistent growth than the controls, as a function of the previous summer's experience.

However, it certainly is possible that had we been able to conduct observations on both groups of children in the schools, the behavioral differences as measured by the observational schema would have been considerable. These behavioral differences, such as the increased attention span found among the Head Start group at the end of program, might act as intervening variables in such a manner that, eventually, the Head Start Children would pull ahead . once again. For example, the teachers might find them more attentive, less restless, and more cooperative and might, in the long range, thus be able to teach them more. As a matter of fact, these behavioral changes might constitute the most meaningful area of program impact.

It is quite apparent that a number of important questions have been raised by this study, which can be answered only by further investigation. These are:

1. It would be important to carry out observations in the school setting, to measure possible behavioral changes as discussed immediately above.
2. It would be important to have ratings of all the children

completed by their teachers, as this may well be, in the long run, a most meaningful criterion of program impact.

3. It would be important to do a year's end follow-up, in order to ascertain whether an impact of Head Start is to be found after possible behavioral changes have had sufficient time in which to act as mediating variables.

4. Since the Head Start programs under evaluation were not very different in content from a nursery school experience, it would be important to study growth in children who were given a specific and concentrated cognitive enrichment program. Here the chief focus would be upon tasks of visual and auditory discrimination, vocabulary training, etc.

5. Finally, it would be most important to determine whether a year of Head Start might not have longer-lasting results than did the very brief programs conducted the last summer.

In conclusion, it seems that in terms both of the cognitive skills measured and the feelings about peers, authority figures and play materials, the eight week summer Head Start programs conducted by this agency did not have an impact greater than that of the first several weeks of school. As was pointed out, this is not surprising, in view of the very short time for which the children participated in the programs. Moreover, as also was pointed out, the statistical tests indicated that differences approached significance in most cases, and thus give one some reason to speculate that an even slightly stronger "injection" of the Head Start curriculum would have a significant

long-range impact.

It was unfortunate that the observational procedures could not be implemented at the time of follow-up, in the school setting. As it is, we have no way of knowing whether or not the behavioral changes found to occur during the course of program would also be found to differentiate between Head Start participants and non-participants after the beginning of school. As was suggested, changes in behavior, which might well be related highly to teachers' feelings about the children which might, in turn, be related to scholastic outcome, are particularly important and should be the subject of much further study. This research was particularly encouraging in this regard, for it has demonstrated clearly that the interaction patterns and play behaviors of children such as these are amenable to objective evaluation, which may pehaps facilitate further study.

The same may be said for this research as a whole. It was possible to develop or adapt, and to use, a number of tests which were sensitive to intra-child changes accompanying initial participation in organized social/educational activities. As a result, it has been possible to evaluate outcome, to speculate with some objective justification on the direction future programs should take, and to present a seemingly valid methodology for possible future utilization.

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REFERENCES

Deutsch, Cynthia P., "Auditory Discrimination and Learning: Social Factors" Institute for Developmental Studies, Dep't. of Psychiatry, New York Medical College, prepared for the Arden House Conference on Pre-school Enrichment of Socially Disadvantaged Children, December, 1962.

Deutsch, Martin, "The Disadvantaged Child and the Learning Process", Progress Report, in H. Passow (Ed) Education in Depressed Areas, N.Y. Teachers College Bureau of Publications, 1963.

_____, "The Influence of Early Social Environment on School Adaptation", In Schrieder D. (Ed.) The School Dropout. Washington, D.C.: National Education Association, 1964.

_____, and Brown, Bert, "Social Influences in Negro-White Intelligence Differences," The Journal of Social Issues, April, 1964.

Feldmann, Shirley, "A Preschool Enrichment Program for Disadvantaged Children," Inst. for Developmental Studies, Dep't. of Psychiatry, New York Medical College, Published in The New Era, 1964.

Ferguson, George A., Statistical Analysis in Psychology and Education, McGraw Hill, New York, 1959.

Katz, Phyllis and Deutsch, Martin, "Visual and auditory efficiency and its relationship to reading in children," Cooperative Research Project No. 1099, Institute for Developmental Studies, New York Medical College, 1963.

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OBSERVED _____(1-2) LENGTH OF TIME (MIN.) _____(3-4) OBSERVER _____(5-6)

ACTIVITY _____(7-8) DATE _____(9-14) OBSERVATION NUMBER _____(15-18)

(19-20)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	Col.
21 - "L" if involves leader																						15-16
INITIATOR OF FACT																						
22 - Subject																						17-18
23 - Other																						19-20
ORIENTATION OF ACT																						
24 - External Manifest goal																						21-22
25 - Social goal-solidarity																						23-24
26 - Non-purposive																						25-26
27 - Responding																						71-72
EXPRESSION OF SELF ESTEEM																						
28 - Lacking (Apathetic)																						27-28
29 - Realistic																						29-30
30 - Unrealistically great																						31-32
REACTION TO FRUSTRATION																						
31 - Withdrawal																						33-34
32 - Aggression																						35-36
33 - Goal substitution																						37-38
34 - Perseveration																						73-74
35 - Other appropriate																						39-40
36 - Other inappropriate																						41-42
EMOTION ("2" if inapprop.)																						
37 - Negative																						43-46
38 - Positive																						47-50
39 - No Emotion																						51-54
TERMINATOR OF ACT																						
40 - Subject																						55-56
41 - Other																						57-58
GOAL REACHED																						
42 - Yes																						59-60
43 - No																						61-62
44 - No goal																						63-64
45 - LEADER - INITIATOR																						65-66

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SUPPLEMENTARY OBSERVATIONAL SCHEMA

1. Activity Level

1	2	3	4
Child always quite active (whether in one place or covering space).	Child generally active, though frequently still	Child generally inactive, though periodically active	Child typically inactive and rarely engages in active movement

2. Gross vs. Fine Movements

In the balance between large body movements (whether in one place or in locomotion whether total body or other large movements) and fine (small and careful) movements, the child's motor behaviors are:

1	2	3	4
Typically gross; rarely fine	Gross somewhat more than fine	Fine somewhat more than gross	Typically fine; rarely gross

3. Awkwardness and grace

The general smoothness and style of the child's movements, whether or not he always achieves what he sets out to do, is:

1	2	3	4
Typically awkward	Generally undistinguished, though occasionally awkward	Generally undistinguished, though occasionally graceful	Typically graceful

4. Motor Behavior and Tension Discharge

When the child cannot complete some behavior once begun (delay required), the child typically:

1	2	3	4
Usually discharges tension thru motor activity	Often discharges tension thru motor activity	Sometimes discharges tension thru motor activity	Rarely discharges tension thru motor activity

5. Coping: Success

When a child does make active attempts at coping (with an activity or object) he:

1	2	3	4
Typically succeeds (age adequately)	Generally succeeds (age adequately) but occasionally fails	Generally fails but occasionally succeeds (age adequately)	Typically fails (even considering age)

6. Relation to Animate and Inanimate Objects

The intensity of the child's relation to animate objects as compared to inanimate objects is characteristically:

1	2	3	4
Much greater for animate objects	A bit greater for animate objects	A bit greater for inanimate objects	Much greater for inanimate objects

7. Appropriateness of the Child's Mode of Evoking Responses

When the child wants or needs some response (or a satisfactory substitute) from the leader, his attempts to evoke it may be inappropriate in various ways -- for example, so indirect as to be unclear, so exaggerated as to produce leader's withdrawal. Or his attempts may be appropriate. For this child, his attempts to evoke a response are:

1	2	3	4
Typically appropriate	Generally appropriate, but occasionally inappropriate	Generally inappropriate, but occasionally appropriate	Typically inappropriate

8. Mode of the Child's Communication

This may be verbal or non-verbal (emotion or affect expression of pre-verbal sounds.) (Note that this is independent of specificity of communication: verbal communication, for example, can be quite distorted, nebulous, and non-specific). The child's mode of communication is:

1	2	3	4
Typical non-verbal	Non-verbal a bit more than verbal	Verbal a bit more than non-verbal	Typically verbal

9. Response to Success

1	2	3	4
When the child succeeds, he typically reacts by withdrawal, and/or aggression	Generally reacts by withdrawal, and/or aggression; but sometimes with positive affect	Generally reacts with positive affect, but sometimes negatively	Typically reacts with positive affect

10. Response to Failure

1	2	3	4
When the child fails to initiate or complete what he wants, he typically reacts by withdrawal, aggression or perseveration	Generally reacts by withdrawal, aggression or perseveration but sometimes with goal substitution	Generally reacts with goal substitution, but sometimes by withdrawal, aggression or perseveration	Typically reacts with goal substitution

11. Goal Direction vs Random Activity

1	2	3	4
The child's activity is typically random, rarely goal directed	The child's activity is generally random, but sometimes goal directed	The child's activity is generally goal directed, but sometimes random	The child's activity is typically goal directed

12. Attention Span

1	2	3	4
The child typically flits from one activity to another	He generally flits, but sometimes shows lengthier involvement	The child generally shows lengthier involvement, but sometimes flits	The child typically shows lengthier involvement

13. Investment of Self in Activity

1	2	3	4
The child typically does not invest himself in the activity	The child sometimes invests himself in the activity	The child often invests himself in the activity	The child typically invests a great deal of himself in the activity

14. Creative Use of Instrument

1	2	3	4
The child typically does not use material creatively	The child sometimes uses material creatively	The child often uses material creatively	The child typically uses material creatively

15. Constructive vs Destructive Play

1	2	3	4
The child typically is destructive in his use of material	The child is generally destructive, but sometimes constructive	The child is generally constructive, but sometimes destructive	The child is typically constructive in his use of materials

16. Attention Seeking Activity

1	2	3	4
What the child does is typically geared toward attracting attention	What the child does is generally geared toward attracting attention, but is sometimes autonomous	What the child does is sometimes geared toward attracting attention, but is generally autonomous	What the child does is typically autonomous

17. Appropriateness of Child's Mode of Evoking Response From Peers

1	2	3	4
Typically appropriate	Generally appropriate, but occasionally inappropriate	Generally inappropriate, but occasionally appropriate	Typically inappropriate

MANUAL FOR USE OF OBSERVATIONAL SCHEMA

ACTION :

INITIATION: Emergence of specific mode of interplay between the subject and the environment, any sequence of discussion or action around a topic.

EXAMPLE: A boy approaches a group leader, complaining about the treatment he receives at the hand of another child. The leader asks the boy to describe what happened, then gives his opinion. The boy then indicates his approval of the leader's suggestion, and walks off.

This is scored as one action because it is concerned with a central topic: The boy's grievance It is considered that the boy initiated the action, inasmucn as he brought the topic up.

TERMINATION: The cessation of this specific interplan. Introduction of a new topic.

EXAMPLE: In the above example, the boy indicated his approval and walked off.

In this case the boy may be considered to have terminated the inte action. Similarly, if the boy had stayed with the group leader but had changed the topic of conversation, this also would be taken as termination of the action.

ORIENTATION OF ACT: The goal to which the specific interaction is addressed.

EXTERNAL, MANIFEST GOAL: Some tangible object, or some effec which is not primarily social, desired from the environment.

EXAMPLE: (1) A boy approaches the group leader asking for a ball.

(2) A boy approaches the group leader asking that he keep other children from picking on him.

(1) is external and manifest becaus it deals with an object which is desired by the boy.
(2) is not to be coded as a "social

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action because the primary purpose is not to initiate social intercourse but to effect a change of group activity beneficial to the boy being observed.

SOCIAL: An act which is oriented to the end of obtaining social interaction. This effort may be directed to staff, peers, or others in the environment.

EXAMPLE: A boy approached another boy, and asked him what he was doing.

NON-PURPOSIVE: Random activity, not addressed to any apparent goal.

EXAMPLE: The boy squirmed and fidgeted when approached by the group leader. Although the group leader asked a number of questions, the boy did not reply but continued squirming and fidgeting.

EXPRESSION OF SELF-ESTEEM: The self-expressed evaluation of one's own capabilities, either current or potential.

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LACKING: Self-debasement, or total disregard of one's merits

EXAMPLE: A boy stating that he just can't do anything right.

REALISTIC: In proportion with one's attainments.

EXAMPLE: A boy's pride in a task well completed.

UNREALISTICALLY GREAT: Out of proportion with one's attainments or potential.

EXAMPLE: A boy's stating that he knows more than the group leader.

FRUSTRATION: The blocking of, or interference with, an ongoing activity.

SELF-IMPOSED: Not posed by the environment but a result of one's own actions.

EXAMPLE: A boy with braces constantly trying to assert himself as leader of violent activities.

ENVIRONMENTALLY IMPOSED: Frustration not due to one's own actions.

EXAMPLE: The whole group went on a walk; the orthopedically handicapped child was not able to participate.

REACTION TO FRUSTRATION: The affective state resulting from being thwarted.

WITHDRAWAL: Physical or psychic removal from the realm of conflict.

EXAMPLE: A boy becomes frustrated during competition, and walks away from the game.

AGGRESSION: Attack upon another person, or any psychological equivalent of such attack, or projection of felt aggression.

EXAMPLE: Upon being left out of a game, a boy makes a number of aggressive allusions to an unspecified other who "has it in for him."

GOAL SUBSTITUTION: The substitution of activities that can be carried out successfully for activities which are doomed to failure.

EXAMPLE: An orthopedically handicapped child is told that the group is going to run road-races; he therefore interests another child in playing a passive game during the course of the road-running.

EMOTION: The affect bound up in any action. (If the emotion is not appropriate to the particular action, enter a 2 in the appropriate box rather than the usual check mark.)

AMBIVALENT: Evidence of both positive and negative affect regarding the topic.

EXAMPLE: An orthopedically handicapped child stated that he was completely normal, just like anyone else; he then added that orthopedically handicapped children "make him sick

POSITIVE: Overt positive affect bound up with the activity.

EXAMPLE: The boy was very happy with the decision.

NEGATIVE: Marked negative affect bound up in the action.

EXAMPLE: During the discussion, the boy began throwing rocks at the other children in the group.

NO EMOTION: The absence of any discernible emotional reaction to the specific action.

EXAMPLE: The boy did not respond to the suggestion of the other boys.

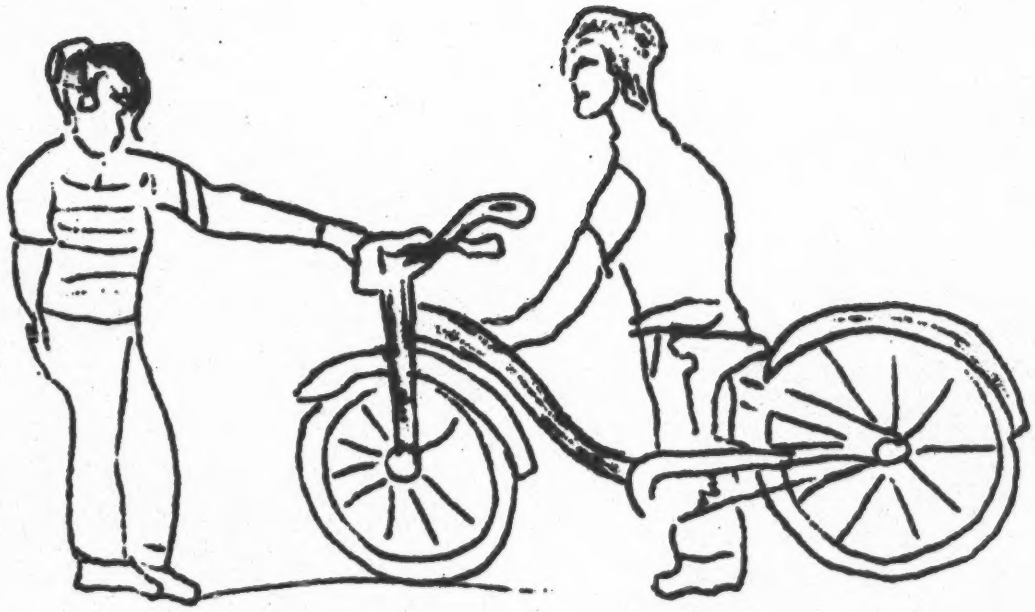
GOAL: The end result sought, either explicitly or implicitly, by the action.

REACHED: The sought-after effect or object is attained.

EXAMPLE: One boy approached another seeking companionship. The other boy included him in his ongoing activities.

NOT REACHED: Cessation of the activity before the desired object or effect is obtained.

EXAMPLE: The boy saw that he was getting nowhere, so walked off.



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MANUAL FOR SCORING PROJECTIVE DEVICE

QUALITY OF THE INTERACTION:

When an interaction occurs it can be seen as positive, negative, or neutral.

EXAMPLES:

Positive: "This boy is riding his bicycle. The other one asks him for a turn and he will get off and let him have it. Score +

Negative: "This boy pulls the other one off the bike and takes it away - they fight." Score -

Neutral: "These are two boys with a bicycle - they have to go home." Score 0

DEGREE OF INVESTMENT IN THE ACTIVITY:

When the figures are engaged in some activity, there can be a fantasy elaboration about the activity or there can be a simple description of the card.

EXAMPLES:

Investment: "The girl is playing with her doll - she is putting her to sleep and singing her a song." Score +

No Investment: "The girl is holding a doll." Score -

THE QUALITY OF THE AFFECT INVESTED IN THE ACTIVITY:

When the figures are engaged in an activity, the activity can be seen as pleasurable, unpleasurable, or neutral.

EXAMPLES:

Pleasurable: "The teacher is reading them an exciting story - when she is finished they'll ask to hear it again." Score +

Unpleasurable: "They are very bored by the story the teacher is reading - they will get dressed and go home." Score -

Neutral: "The teacher is reading to them." Score 0

THE CONSTRUCTIVE vs. THE DESTRUCTIVE QUALITY OF THE ACTIVITY:

When the figures are engaged in an activity, the activity can be of a constructive, destructive, or neutral nature.

EXAMPLES:

Constructive: "The boy is going to build a garage and put his truck in it." Score +

Destructive: "The boy wants another truck - he doesn't like this one - he will throw it on the floor and it will break." Score -

Neutral: "The boy has a truck." Score 0

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WE COULD USE

YOUR HELP!

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YOU'VE PROBABLY HEARD ABOU_(

H E A D S T _

IT GIVES YOUR CHILDREN A CHANCE FO_

WE WANT TO MAKE THIS PROGRAM EVEN BETTER FOR

TALK WITH YOUR CHILD - TO FIND OUT WHERE

WE STOPPED BY AND YOU WEREN'_

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._OOD NURSERY SCHOOL

THIS FALL. TO DO THIS WE NEED TO

: HE STANDS - WHAT HE NEEDS.

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_ SO ----

(OVER)

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PLEASE CALL US TO SET A TIME WHEN WE COULD GET TOGETHER WITH YOUR CHILD. PLEASE CALL TU 2-4000, EXTENSION 20.

IF YOU KNOW ANYONE ELSE WITH 5 OR 6 YEAR OLDS, WOULD YOU PLEASE GIVE THEM OUR NUMBER.

MANY THANKS.

P.S. WE'LL GLADLY PAY TO COVER YOUR EXPENSES FOR CARFARE, ETC.